

WHAT IS CLAIMED IS:

1. A method for realizing an end-to-end connection between a client layer connected to an RPR (Resilient Packet Ring) network and a client layer connected to an MPLS (Multi Protocol Label Switching) network, wherein
 - 5 - the RPR network and the MPLS network are interconnected through a TLS (Transparent LAN Service) layer.
2. A method as in claim 1, wherein the RPR network and the MPLS network are further interconnected through an interface consisting in a physical layer like, but not limited to, SDH or SONET, or Ethernet.
- 10 3. A method as in claim 1, wherein it comprises the following steps:
 - in the direction from RPR to MPLS:
 - received client frames are encapsulated in TLS packets, indicating the final destination;
 - the TLS packets are then encapsulated in RPR packets and passed to the MPLS network;
 - 15 - the TLS packets become MPLS packets and travel in the MPLS network until the final destination;
 - in the direction from MPLS to RPR:
 - received client frames are encapsulated in MPLS packets, indicating the LSP
 - 20 (Label Switched Path) that has to be followed up to the final destination;
 - the MPLS packets are switched inside the MPLS network and then passed to the TLS network, becoming TLS packets;
 - the TLS packets are then encapsulated in RPR packets and travel in the RPR network, until the final destination.
- 25 4. A method as in claim 3, wherein an auxiliary TLS Header is added to said received client frames, obtaining said TLS packets; then an RPR Header is added to said TLS packets, obtaining said RPR packets, and in that said TLS Header contains a channel identifier field, identifying the connection between the client layer connected to the RPR network and the client layer connected to the MPLS network, said TLS Header further containing Reserved bits and Error correction bits.
- 30 5. A method as in claim 4, wherein in the direction from RPR to MPLS, the

TLS header is converted in an MPLS Header by the following steps:

- the TLS channel identifier field is left unchanged and becomes the MPLS Label in the MPLS header;

- TLS Reserved bits are left unchanged and put in the MPLS header;

5 - the TLS Error correction bits are removed and a predefined MPLS Time-to-live value is inserted in the MPLS header.

6. A method as in claim 5, wherein in the direction from MPLS to RPR, the MPLS Header is converted in a TLS Header by the following steps:

- the MPLS Label field is left unchanged and becomes the TLS channel identifier field;

10 - MPLS Reserved bits are left unchanged and put in the TLS header;

- the MPLS Time-to-live is removed and TLS Error correction bits are inserted in the TLS Header.

7. A method as in claim 1, wherein the client layer is Ethernet or IP.

15 8. A telecommunication transmission network for end-to-end connection, where a first and a second client layer exchange information, wherein it comprises:

- an RPR (Resilient Packet Ring) network connected to the first client layer;

20 - an MPLS (Multi Protocol Label Switching) network connected to the second client layer;

- a TLS (Transparent LAN Service) layer interconnecting the RPR and the MPLS networks.

9. A telecommunication transmission network as in claim 8, wherein the RPR network and the MPLS network are further interconnected through an interface consisting in a physical layer like SDH or SONET or Ethernet.

25 10. An RPR node suitable to implement the method of claim 4, wherein it comprises means for adding the TLS Header to the RPR Header, and means for selecting a port connected to a corresponding port of a node of the MPLS network, on the basis of the channel identifier field value.

30 11. An MPLS node suitable to implement the method of claim 6, wherein it comprises means for converting the TLS Header into an MPLS Header and/or vice-versa, and means for selecting a port connected to a corresponding port of a node of the RPR network, on the basis of the Label value.

12. Computer program comprising computer program code means adapted

to perform all the steps of claims 1 to 8 when said program is run on a computer.

13. A computer readable medium having a program recorded thereon, said computer readable medium comprising computer program code means adapted
5 to perform all the steps of claims 1 to 8 when said program is run on a computer.